Dennis Brandt made some valid observations regarding the Laboratory's vehicles (see the letter from 02/06/04). It is important to note that the Laboratory's new code of ethics includes the statement, "We minimize risks to public health and the environment…." In addition the trying to do the "right" thing, the Laboratory has several pollution-prevention and resource-management goals that drive an institutional focus on environmental issues, including vehicle use. The Risk Reduction and Environmental Stewardship (RRES) Division's Pollution Prevention/Sustainability Program (RRES-PP) has the institutional lead for this focus.

Why is LANL interested in Alternative Fuels?

For the past decade, the Federal Government has been working hard to lead by example in reducing the nation's environmental impact. Five Executive Orders (13101, 13123, 13134, 13148, 13149) were signed for the purpose of "greening the government." These orders focus on promoting bio-based products, such as biodiesel and ethanol, in order to improve the quality of our natural resources. Each year, the Laboratory uses over 250,000 gallons of diesel fuel and over 48,000 gallons of gasoline. With the U.S. headed towards increased strains on energy supplies, finding alternative sources can help protect national energy security. Using domestic agricultural products, such as biodiesel and ethanol, for Laboratory fuel requirements reduces the dependence on foreign oil and bolsters the U.S. economy by creating domestic jobs and supporting agriculture.

In 1999, then Secretary of Energy Bill Richardson responded to the Executive Orders by issuing a memo requiring DOE agencies to accomplish three goals concerning fleet vehicles by 2005 (using 1999 as a baseline). These are:

1. Reduce annual petroleum consumption by 20%
2. Each year, acquire at least 75% of light duty vehicles as Alternative Fuel Vehicles (AFV)
3. Increase usage rate of alternative fuels in AFVs to 75%

What is LANL doing?

Since the issue of Secretary Richardson's memo, the Lab has acquired over 400 AFVs. Over 80 of these vehicles can run on compressed natural gas (CNG) and currently do by fueling at a CNG station in TA-60.

In the laboratory overall there are 350 E-85 flex-fuel vehicles (FFVs). LANL is in the process of installing a 12,000-gallon E-85 (85% ethanol, 15% petro-unleaded) tank in a secured area at TA-16. In this area 75 vehicles can use an estimated 22,000 gallons of E-85 annually, replacing 12,000 gallons of petro-fuel per year. This fueling station should be operational by April of this year. In other non-secured areas, 275 vehicles at the Laboratory could utilize an E-85 fuel supply. These cars can be expected to use approximately 95,000 gallons of E-85 per year, replacing 55,000 gallons of petro-fuel per year. These numbers will increase in the future as the Laboratory continues to replace conventional vehicles with FFVs.

Another alternative fuel coming to the Laboratory is B-20 (20% biodiesel, 80% petro-diesel). B-20 can easily be used in existing diesel engines with little or no engine modification. After a supply is secured, LANL expects to use about 250,000 gallons of B-20 annually, displacing 50,000 gallons of petro-diesel per year.

To supply the E-85 and B-20 capable vehicles with these fuels, the Pollution Prevention Team from RRES Division is working to install a E-85 and B-20 fueling station also at TA-60.